

REMARKS

Claims 1 to 8, 10 to 19, and 21 to 41 are now pending in the application. Claims 1, 2, 4, 5, 7 and 15 to 18 are amended. Support for the amendments is found in the specification as originally filed, for example at Paragraphs [0015], [0027], [0028], [0032], and [0036]. Claims 9 and 20 are cancelled. Claims 27 to 41 stand withdrawn. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 2, 4, 5, 7, 9, and 16 to 18 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

The Office Action states that it is unclear whether the term “interfacial layer” describes an additional layer or the ceramic layers of the independent claims. The Examiner’s attention is directed to amended Claims 2, 4, 5, 7 and 16 to 18. These claims have been amended to identify the interfacial layer as being the ceramic layer disposed adjacent the substrate of the independent claims. Also, it is respectfully submitted that amended Claim 7 is not indefinite as it describes a further interfacial layer within the interfacial barrier laminate that is distinct from the ceramic and metallic layers of the independent claims.

REJECTION UNDER 35 U.S.C. § 102(b)

Claims 1 to 26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dearnaley et al. (U.S. Pat. No. 6,087,025), Chen et al. (U.S. Pat. No. 5,224,969), and Kimock et al. (U.S. Pat. No. 5,135,808). These rejections are respectfully traversed.

With respect to the cited Dearnaley and Kimock references, the independent claims have been amended to include metal layers comprised of Cr, Ti, Zr, W, Ni, or combinations thereof. As neither Dearnaley nor Kimock teach such a metal layer, the amended claims are patentably distinct over the references.

Specifically, the Applicants respectfully suggest that Dearnaley teaches the use of silicon and/or germanium layers between the ceramic and carbide layers. (Col. 3, lines 23-36). Silicon and germanium are better categorized as metalloids, and not metals. For this reason, the reference fails to disclose the metallic layer limitation of the amended claims.

Furthermore, the substantially transparent substrates and interlayers of Kimock are comprised of glass, certain ceramics, metal oxides, and diamond coatings. However, Kimock does not disclose use of metal layers according to the amended claims. Also, it is respectfully submitted that the composites of Kimock cannot contain the metallic layer limitation of the amended claims, because such layers are not substantially transparent and would render the Kimock invention inoperable. For at least this further reason, the § 102(b) rejection based on the Kimock reference should be withdrawn.

Additionally, the Applicants respectfully submit that the Chen reference does not anticipate the presently amended claims as Chen teaches single crystal half carat

diamonds coated with metal carbides and metals. (Col. 6, lines 5-47). The substrates claimed in the present invention are not comprised of diamond. The diamond coatings claimed in the present invention are further disposed over an interfacial barrier laminate, and are structurally distinguishable from the single crystal half carat diamonds of Chen. Consequently, the present claims are patentably distinguishable over the Chen reference.

REJECTION UNDER 35 U.S.C. § 102(e)

Claims 1 to 9 and 15 to 26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Welty et al. (U.S. Pat. No. 6,904,935). This rejection is respectfully traversed.

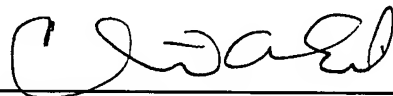
The Office Action states that Welty discloses the claimed diamond layer on a substrate having the claimed intermediate layers thereon. It is respectfully submitted that Welty does not disclose all of the claimed layers. Specifically, the Welty reference teaches an “adhesion promoting” layer adjacent to the substrate that is made of metal or metalloids, preferably chromium, titanium, tungsten, other refractory metals, silicon. See Col. 5, lines 38-42. In contrast, Claims 1 and 15 claim a *ceramic layer disposed adjacent to the substrate*. Additionally, Welty only discloses a substrate, adhesion layer, strengthening layer, and a diamond like carbon layer. (Col. 5, lines 33-52). The claimed layers of the present invention, however, include at least one additional ceramic layer disposed adjacent to the substrate. Accordingly, the reference fails to disclose all of the limitations of the rejected claims, and it is respectfully submitted that the § 102(e) rejection should be withdrawn as improper.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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